



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
28.03.2012 Bulletin 2012/13

(51) Int Cl.:
G01R 31/00 (2006.01)

(43) Date of publication A2:
12.05.2010 Bulletin 2010/19

(21) Application number: **09175552.0**

(22) Date of filing: **10.11.2009**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
Designated Extension States:
AL BA RS

(72) Inventor: **Hernandez, Marcos**
San Jose, CA 95125 (US)

(74) Representative: **Mackenzie, Andrew Bryan et al**
Scott & York
Intellectual Property Limited
45 Grosvenor Road
St. Albans
Hertfordshire AL1 3AW (GB)

(30) Priority: **11.11.2008 US 113308 P**
13.05.2009 US 465099

(71) Applicant: **Thermo Fisher Scientific Inc.**
Waltham MA 02454 (US)

(54) **Systems and methods for charged device model electrostatic discharge testing**

(57) Systems and methods for testing an integrated circuit device using transmission path and charged device model electrostatic discharge testing. The method includes measuring a electrostatic discharge signal (152) from a charged transmission path (56) of the system (10), measuring a electrostatic discharge signal (162) from the

charged transmission path (56) of the system (10) and a charged integrated circuit device (12) coupled with the charged transmission path (56), and determining a charged device model waveform (182) based upon distinctions between these electrostatic discharge signals (152, 162).

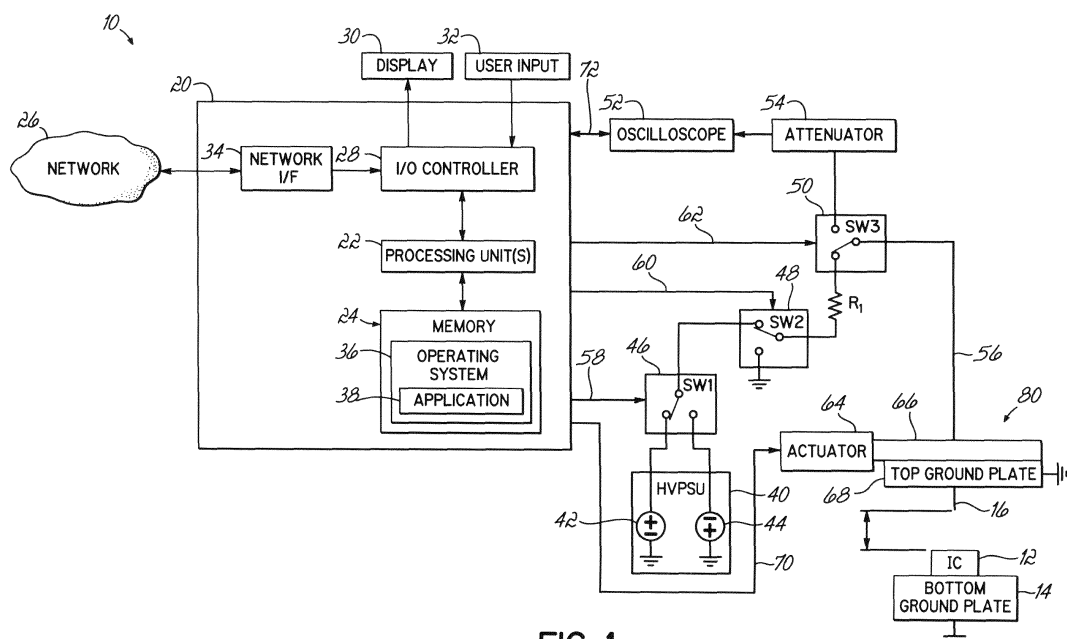


FIG. 1



EUROPEAN SEARCH REPORT

Application Number
EP 09 17 5552

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	HORST GIESER ET AL: "Very Fast Transmission Line Pulsing of Integrated Structures and the Charged Device Model", IEEE TRANSACTIONS ON COMPONENTS, PACKAGING AND MANUFACTURING TECHNOLOGY. PART C: MANUFACTURING, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 21, no. 4, 1 October 1998 (1998-10-01), XP011019955, ISSN: 1083-4400	1	INV. G01R31/00
A	* the whole document *	2-15	
A	US 2005/030043 A1 (KER MING-DOU [TW] ET AL) 10 February 2005 (2005-02-10) * paragraph [0033] - paragraph [0036]; claim 1 *	1-15	
A	US 5 523 699 A (MIYAGAWA RYUHEI [JP]) 4 June 1996 (1996-06-04) * column 3, line 15 - column 5, line 23 *	1-15	
A	US 2007/018670 A1 (ITO CHOSHU [US] ET AL) 25 January 2007 (2007-01-25) * paragraph [0022] - paragraph [0030] *	1-15	TECHNICAL FIELDS SEARCHED (IPC) G01R
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 17 February 2012	Examiner Meggyesi, Zoltán
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

 1
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 09 17 5552

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

17-02-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2005030043 A1	10-02-2005	CN 1601292 A	30-03-2005
		TW I243912 B	21-11-2005
		US 2005030043 A1	10-02-2005
-----	-----	-----	-----
US 5523699 A	04-06-1996	JP 6051018 A	25-02-1994
		US 5523699 A	04-06-1996
-----	-----	-----	-----
US 2007018670 A1	25-01-2007	NONE	
-----	-----	-----	-----

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82